Le Maitre HazeMaster User Manual

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Introduction

The Le Maitre HazeMaster is the latest in the range of high specification hazers and as such will fulfil the majority of applications where higher demands are required. It utilizes the original and patented technique of producing haze via an easily replaceable 'conversion' tube, whilst at the same time benefits from advances made during the development of the Stadium hazer.

The HazeMaster features easy set rotary controls and an integral two-channel current protocol DMX, combined with a digital display

Easy set manual airflow vector system allows a wide variation of Haze angle.

An incorporated non-volatile memory module allows for all settings to be retained and recalled upon start up. This is ideal where a 'switch on and go' mode is required.

Minimal maintenance is required …. A flexible, stainless steel tube cleaning rod is situated under the front curved cover, which itself is easily removed. Any condensation is easily removed from the case or fan housing.

Le Maitre believes that this machine is one of the most effective and versatile haze machines currently available anywhere in the world, and is backed up by our usual high level of technical and sales communication networking.

For further information, please visit: www.lemaitreltd.com

Features

Extremely High Haze Output is variable down to a whisper

Variable direction non contact high velocity fan.

Selectable address 2 channel DMX.

Rotary manual control panel with digital display

Uses the unique Le Maitre Hazing Fluid.

Safety Guidelines

All electro-mechanical machines have the ability to cause injury if used incorrectly. The user should be fully aware of the correct operational procedures involved in the use of this machine, and should feel comfortable about being in control of it.

Users should be aware of all regulations on the use of Smoke and Haze machines.

Users should make themselves aware of any national or local restrictions to the use of these types of machines in applications involving public venues or areas.

The safe employment of this machine is strictly the responsibility of the user.

Take note of all warning labels displayed on the machine.

Ensure the correct supply voltage is used with this machine. The voltage setting is displayed on the rear panel of the machine.

The machine should be electrically earthed, and should never be connected to an unsafe supply.

The machine should not be connected to a 'noisy' or spike laden power supply.

Exit nozzles will be very hot and capable of causing burns. Do not touch or obstruct these nozzles.

Under adverse conditions, small particles of hot fluid could issue close to the machine. Never aim at persons and maintain a 3m safety clearance.

Do not allow the ventilation holes at the sides of the machine to be covered or obstructed.

Spilled fluid or splashed fluid droplets can be a slip hazard. Comply with regulations when clearing or disposing of fluid.

Take note of any warning/advice notices displayed on fluid containers.

Do not operate the machine with any covers removed.

Environmental Guidelines

Operating this machine under adverse conditions may reduce the machine's life span and adversely affect the haze produced.

Unsuitable conditions include:

Excessive temperature

Excessive moisture or humidity

Excessive vibrations

Unstable surfaces

Excessive dust and/or dirt

Poor ventilation

Flammable surroundings

Re circulation of Haze through the machine.

Fluid Use

Please note that the fluid used with the HazeMaster is not like any other fluid used typically in smoke or hazer machines. It is a high concentration fluid, which other manufacturers' machines are unable to process without incurring damage.

Do not attempt to water down the haze fluid. This will lead to inefficient conversion and produce hot fluid particle emission.

Only Le Maitre Ltd Hazer Fluid should be used. Use of other fluid will cause incorrect operation and could cause toxicity issues.

To replace the fluid, exchange the empty bottle for a new one. Use the screw lid to seal the used bottle and dispose of correctly. Re filling the empty bottle is not advised as this can lead to the introduction of foreign particles which may reduce the efficiency of the external in-line filter.

Any spillage should be cleaned away. Spillages of the fluid can be cleaned with a standard, water-based cleaner.

Getting Started

Remove the machine from all packaging and place on a flat, stable surface.

Connect a bottle of Le Maitre hazer fluid to the machine by inserting the fluid feed pipe into the fluid bottle and securing the cap on the feed pipe to the bottle. Do not tighten the bottle cap fully as this will prevent air from entering the bottle as fluid is used. Only full tighten the cap if fluid is going to be left in the machine whilst moving / re-siting the machine.

Connect the machine to a suitable power supply using the supplied lead.

Set the power switch on the machine to the ON position.

The HazeMaster will run through a routine whereby the quality and frequency of the mains power source is detected before entering a process which biases its power transformer correctly. (This prevents pulse/surge currents and allows efficient cool running. Should the quality of the mains power be detected as changed whilst running, a reset might be generated. This will last for only for a few seconds before resuming normal operation).

The machine will then begin a short Pre-Heat cycle. This should only take a few minutes. During this time, the digital display will indicate this process. DMX address changing is allowed during this time.

When the pre-heat has completed, the digital display will stop cycling text and switch to the normal display of Haze or Fan settings..

Priming the System

Normally there should be no need to 'prime' fluid into the system. If there are pockets of air and fluid in the pipe, these will be removed as the pump is activated during normal haze output. It might take a few minutes to completely free the air pockets, but no harm is caused during this process.

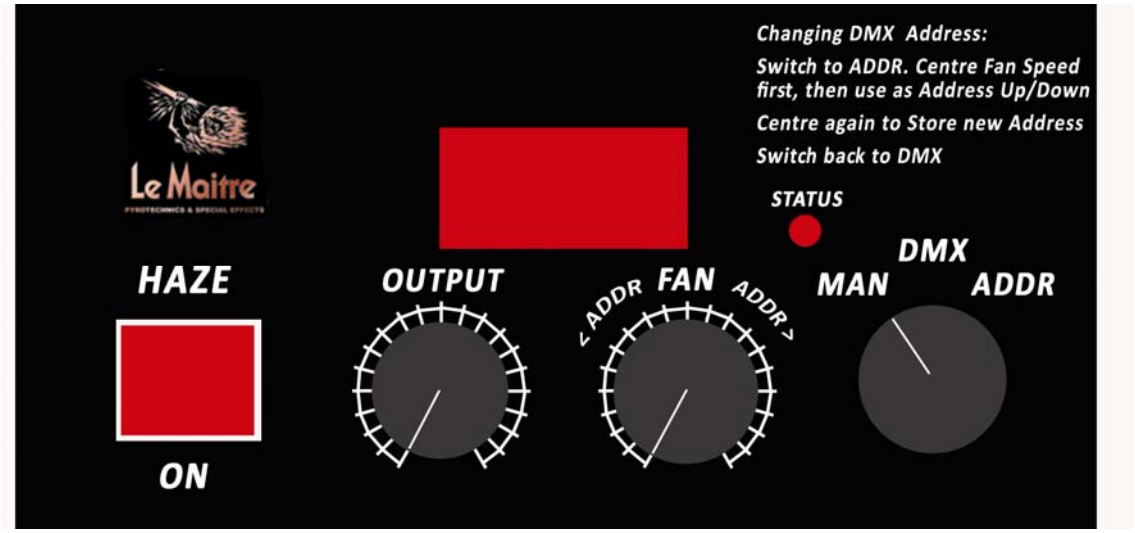
Priming will be achieved in a shorter time if the Haze setting is set to maximum.

Note: Too much fluid in the system might force hot fluid from the output nozzle. Do not over prime. If this occurs it may be necessary to remove the front cover and remove any excess fluid.

The Control Panel

The HazeMaster control panel is used for manual control of the machine and to set up DMX control.

The functions of the controls are described in the following sections.



Manual Operation

With the MAN position selected….

The Output and Fan controls vary the Haze and fan velocity settings. These are in 2 percent steps from 0 – 99. Manual control is still available when DMX is selected when the Haze switch is set to the 'On' position. This is to allow local override when required.

Whichever control is adjusted will determine the displayed value.

The Status light will indicate Haze On conditions.

DMX Control

When switching to DMX, the currently selected address will be displayed. If this address needs to be changed, then further select the ADDR position. Centering the Fan speed control first will allow the address values to be changed up or down from the present setting. The further away from the centre (up or down) the quicker the incremental change. As the address is approached, return the fan control to the centre where the value will be stored, as the display will indicate.

Switch back to the DMX position for DMX control. As stated above, manual control can be used to override the DMX settings (Haze switch on), should local control be desired.

The Status light will remain on when a correct DMX signal is being received, or flash to indicate no connection or incorrect data.

Shutting Down

The best continuing performance will be obtained by turning the Haze off and allowing the HazeMaster to purge the fluid feed before turning off the main power source. **If this is not done it is possible that fluid might be ejected on the next start up.**

Machine Positioning

As with any 'hot vapour' type machine, the HazeMaster should never be positioned such that any hot fluid could be projected, or drip onto personnel, and it is the responsibility of the installer / operator to ensure that this cannot occur.

Do not use the HazeMaster where the output will be pulled back through the machine air Vents.

Any damage caused by excessive condensation inside the HazeMaster due to this process cannot be covered by warranty. (This is not unique to Le Maitre machines and is a common statement made by most reputable manufacturers of Haze/Smoke machines).

Basic Maintenance

The HazeMaster has been designed such that basic maintenance should be possible by the user. Some basic faults and maintenance processes are listed below.

If in doubt, contact Le Maitre.

External Fluid Filter

This unit fits externally in the fluid supply line, and will normally not require any attention. However, it is possible for the filter to become clogged with debris. If this occurs, the performance of the HazeMaster will be reduced.

Should this occur, flush with clean water removing any external debris.

Haze Tube

Should the HazeMaster sense an incorrect operation related to the operation of the conversion tube, it will go into an error mode which will be displayed.

The tube should be checked for clogging. Remove the front panel by undoing the two upper screws and the two side screws. Release the cleaning rod, and insert into the Haze tube using a twisting action as the rod is run down inside. It may be necessary to pull it back and forward to clear any blockage.

Once the tube has been cleared, the next run up will purge the tube, and operation can continue.

Replacing a tube requires the front panel to be removed, and the tube released from the retaining connection pillars along with the temperature sensor and silicon fluid tubing. Tube replacement will not be expected, but should it be required, then all the necessary safety precautions should be made before doing so :

The machine is not connected to the mains supply.

The machine is placed on a suitable work surface.

The machine has been allowed to cool for at least 10 minutes.

The use of correct tools for panel removal and tube replacement.

The ability to be able to confirm suitability of use after the replacement has been made.

This tube is sited underneath the front curved panel. Removing this panel will allow easy access and replacement should it ever be required. Two screws secure the ends of the tube and a quick connector completes the temperature sensor connection. The screws secure the tube both physically and electrically. It is important that they should not be over tightened whilst at the same time, tight enough to provide a good electrical connection.

Push on silicon tubing supplying the fluid and air drive is easily removed from the input end.

After tube replacement, and having checked that all parts are as they should be, the tube should be run through a 'bedding in' period, where any tendency to occasionally output very fine fluid particles (if any), will clear.

Fan System

Depending upon the environment in which the HazeMaster is used, it may be required to provide some form of scheduled cleaning process of the fan scrolls in order to maintain the high power and distribution capabilities.

This requires the removal of the air vent on the underside panel. Once removed, a dampened cloth can be used to clean the vanes along with any condensation build up

Dampened dust can build up on the narrow blades of the fan scroll, effectively reducing the efficiency of air movement and therefore needs removing periodically.

How many months between cleaning processes will depend entirely upon the conditions and environment in which the HazeMaster is used.

Please refer to the safety issue mentioned in the Haze tube section.

Specification

Power Source Requirements	230VAC 800 Watt 50Hz / 120VAC 800Watt 60Hz
Main Fusing	8AT ceramic (12AT ceramic)
Secondary Fusing	2AT ceramic (3AT ceramic)
Fluid Capacity	5 Litres Bottle
Fluid Use: Minimum	1cc/Hr
Maximum	750cc/Hr
Haze Flow direction	20 degrees to 90 degrees
Control	Manual or DMX
DMX 512 - 2 channels:	Haze, Projection
Machine Dimensions	H.230mm W.600mm D.450mm
Weight (Fluid Not Included)	24.5kg

VLM (very low mass) stainless steel replaceable vapour tube

Warranty

The Le Maitre HazeMaster is sold with a one year's warranty, which includes parts and labour from the date of purchase. This warranty covers manufacturing defects, providing that the unit has been regularly serviced by an authorized agent and has only used genuine Le Maitre fluid.

Le Maitre Ltd considers all of its products to be safe for use in the application it was intended. Le Maitre Ltd takes no responsibility for misuse or incorrect use. Always refer to the equipment owner's manual for proper use, and be aware of local legislation governing the products use.